RESEARCH ARTICLE

Upskilling and Reskilling in a Rapidly Changing Job Market: Strategies for Organizations to Maintain Workforce Agility and Adaptability

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ABSTRACT

This Study examines the effectiveness of upskilling and reskilling initiatives in enhancing workforce agility and adaptability in a rapidly changing employment landscape. A quantitative methodology is employed to collect data by surveying 250 employees from 45 prominent companies in Bangladesh. The Study employed Partial Least Squares Structural Equation Modeling (PLS-SEM) to examine the relationships between Strategies for Upskilling and Reskilling (SUR), Workforce Agility and Adaptability (WAA), and the Organizational Support Environment (OSE). The findings suggest that a positive organizational climate significantly influences the effectiveness of upskilling and reskilling initiatives, leading to improved employee capabilities and higher organizational performance. The report also emphasizes barriers such as insufficient financial resources and resistance to change, emphasizing the significance of tailored training programs, a culture that encourages continuous learning, and integrating modern educational materials. These insights give organizations practical advice on establishing effective strategies for maintaining a flexible and adaptable workforce in a dynamic job market. The Study emphasizes the need for strong leadership and organizational support in fostering a culture that highly values ongoing learning and innovation.

Keywords: Adaptability, Reskilling, Upskilling, Workforce Agility.

1. Introduction

The current labor market is changing rapidly due to technological advancements, globalization, and shifting economic conditions (World Economic Forum, 2020). Companies must cultivate a staff that demonstrates agility and adaptability to remain competitive (Bersin & Associates, 2021). Upskilling and reskilling are crucial methods for achieving this goal, as they allow individuals to acquire new abilities or enhance existing ones to match the evolving requirements of their occupations (McKinsey & Company, 2021). Upskilling is the process of improving the workforce's present skills to meet demands both now and in the future (Storey & Wright, 2023). It may consist of "soft" talents that can be honed and tailored to close skill shortages in the workforce (Sabat *et al.*, 2020). For instance, in remote and hybrid work situations, emotional intelligence can be developed to enable improved leadership (Jowett *et al.*, 2024). For technical skills that keep your team flexible and abreast of market developments, upskilling is

also essential (Haque *et al.*, 2024). By offering the required abilities and training programs, this talent concentrates on the development of current employees rather than hiring new ones (Arulsamy *et al.*, 2023). Consequently, the firm can reduce resource costs and preserve their precious time (Kumi *et al.*, 2024). Upskilling improves performance in current roles, whereas reskilling prepares personnel for new organizational responsibilities (Bersin & Associates, 2021). Reskilling is the process of teaching staff members a new skill so they can be moved to a different department within the company (Li, 2022). As an example, when a production system switches from manual to mechanical, the manual laborers will need to acquire new skills in order to learn how to run and maintain the new equipment (Sawant *et al.*, 2022). These strategies are crucial in the manufacturing, finance, and IT industries, which are significantly impacted by technological disruptions (Deloitte, 2022). According to the World Economic Forum, technological developments would necessitate the reskilling of

50% of the global workforce by 2025. Limited technical access in developing countries might provide challenges, but they can be overcome with practical strategies and government support (International Labour Organization, 2021; World Bank, 2020). Research suggests that firms that invest resources in continuous education experience improved staff flexibility, efficiency, and innovation (Harvard Business Review, 2019). IBM and Siemens are notable examples of organizations implementing successful reskilling programs. These programs have successfully resolved deficiencies in skills and led to a workforce that is more adaptable and versatile (IBM, 2020; Siemens, 2020). Government policies and incentives are essential for supporting these efforts, promoting partnerships between the public and private sectors, funding training programs, and ensuring access to education and technology (Organization for Economic Co-operation and Development (OECD), 2021). Initiatives like SkillsFuture have been essential in Singapore by promoting ongoing education and bolstering the development of the labor force (SkillsFuture Singapore, 2021). Organizations can attain long-term growth and competitive advantage by investing in enhancing skills and acquiring new skills, which empowers them to navigate the complexities of the contemporary business landscape. This paper explores the most effective methods for implementing these efforts, focusing mainly on the challenges and opportunities faced in developing countries. The main objectives of this study are to evaluate the impact of upskilling and reskilling strategies on workforce agility and adaptability, examine the role of the organizational support environment in implementing these strategies, and analyze how a supportive organizational environment directly enhances workforce agility and adaptability. Moreover, this Study aims to determine practical approaches and provide recommendations to companies for developing and retaining a flexible workforce in a swiftly evolving employment landscape.

The paper is organized as follows: Section 2 presents a literature review. Section 3 provides an overview of the data utilized in the analysis and outlines the primary research goals. Section 4 provides the findings of the investigation. Section 5 provides conclusions, highlights the primary ramifications, and acknowledges the research's shortcomings.

2. Literature Review

2.1. Upskilling and Reskilling

In today's dynamic job market, marked by rapid technological advancements and evolving corporate demands, upskilling and reskilling are paramount (Laguna-Muggenburg *et al.*, 2021). Upskilling improves employees' skills to improve their job performance, while reskilling prepares them for new roles within the company (Sivalingam & Mansori, 2021; Adepoju, 2022). The Fourth Industrial Revolution has heightened the need for continuous education due to automation and AI's redefinition of job roles and skill requirements (Oladele *et al.*, 2021). Organizations that invest resources in these projects have benefits such as increased employee engagement, enhanced staff

retention, and higher productivity (Unterhofer & Wunsch, 2022). Upskilling and reskilling programs efficiently combat skill shortages and allow employees to handle future problems, fostering long-term sustainability and competitiveness (Li, 2022). The culture and leadership of a business are crucial in successfully implementing these activities and promoting continuous growth and advancement (Herremans, 2021). Aligning training programs with company goals and market demands enhances the effectiveness of these efforts (Rushmeier *et al.*, 2019).

2.2. The Changing Job Market Landscape

The importance of worker agility and adaptability in a rapidly changing job landscape is emphasized by several crucial factors. Employees must acquire an enhanced skill set to meet the evolving requirements of their positions. Ongoing learning is essential for acquiring new skills and abilities (Ul Haq, 2023; Dahlin *et al.*, 2018). Acquiring new skills and updating existing ones is crucial for ensuring the workforce can proficiently handle future technologies (Tractenberg & Williams, 2023). A skilled and adaptable workforce leads to improved performance and greater efficiency, as ongoing skill development is crucial (Al-Kasasbeh *et al.*, 2016). Stephany (2021) asserts that agile workforces exert a significant influence on augmenting productivity and overall performance. Adaptability allows quick responses to market changes and technological advancements, making handling transitions easier and effectively embracing new challenges (Gonzalez Ehlinger & Stephany, 2024).

Moreover, encouraging innovation and creativity by cultivating workforce flexibility supports the creation of novel and unique ideas, guaranteeing a competitive edge (Muduli, 2016). Opportunities for upskilling and reskilling significantly influence employee retention and satisfaction. According to (Talafian *et al.*, 2023), employees who are provided with assistance in their professional growth are more likely to remain with the company and sustain high levels of motivation. Focusing on the development of employees enhances job satisfaction and reduces turnover rates (Ghosheh *et al.*, 2024).

2.3. Strategies for Upskilling and Reskilling

Training programs are essential for improving employee skills and adapting to evolving job demands. These programs employ experiential learning, simulations, and practical seminars tailored to specific employment roles. They foster a culture that encourages continuous learning (Deloitte, 2022; Bersin, 2019; World Economic Forum, 2020). Mentorship and coaching programs provide personalized guidance, resulting in accelerated skill acquisition and improved morale and staff retention (Gallup, 2018; Bersin, 2019). Modern educational platforms employ technology to offer personalized training materials and customize courses to address the unique requirements of individuals and organizations. This enhances their capacity to acquire new skills and adjust to evolving job demands (McKinsey & Company, 2021; Brynjolfsson & McAfee, 2014; Deloitte, 2022). Organizations that align the growth of career trajectories with the enhancement of skills foster higher levels of engagement and retention among

employees. This approach ensures that individuals can handle changing job duties as they evolve (Cukier, 2020). Implementing employee engagement initiatives, such as recognition programs, cultivates a culture emphasizing continuous learning and innovation.

Consequently, this enhances the organization's capacity to swiftly adapt and respond to changes (Ahmed et al., 2022; Rasch & Middelbeck, 2021). Cutting-edge technology, such as virtual reality and adaptive learning systems, provide engaging and personalized learning experiences. They surpass geographical constraints and enable broadening training endeavors, crucial for enhancing organizational flexibility and adjustment (Chakma & Chaijinda, 2020).

2.4. Organizational Support Environment

Organizations should give priority to the development of new skills and the improvement of existing skills in order to increase the ability of their workforce to quickly adapt and respond to changes in the technical landscape and market dynamics. Companies like IBM and Amazon, which place a high value on continuous learning and growth, are better equipped to adjust to these changes by offering training programs on emerging technologies and interpersonal skills (Žitkienė & Deksnys, 2018). Organizational support is essential as it provides personnel with access to training materials, dedicated time for learning, and financial assistance (see Abe et al., 2021). Efficient strategies involve tailoring learning paths, employing AI and machine learning for flexible training, and fostering a culture of innovation and progress (Acemoglu, 2022). In order to address obstacles such as financial constraints and resistance to change, it is recommended to implement a step-by-step strategy, conduct a comprehensive assessment of skill deficiencies, and ensure that training initiatives align with the business's goals. In addition, establishing connections with educational institutions might offer access to pertinent information and resources (Abu-Rumman, 2021).

2.5. Importance of Workforce Agility and Adaptability

In the face of rapid changes in the labor market, firms must prioritize cultivating workforce agility and adaptability. Workforce agility is the capacity of employees to quickly adapt to existing roles or assume new responsibilities in response to changes in the market. Conversely, adaptability refers to reacting to novel technologies, methods, and structures (Sohrabi et al., 2014). These traits are crucial for sustaining competitiveness by fostering a proactive and flexible response to market demands (Gunasekaran, 1999). Organizations that offer resources for upskilling and reskilling programs cultivate a highly skilled workforce that can adjust to changing roles and ensure continuous operational efficiency (Sherehiy & Karwowski, 2014). These programs enhance employees' competence, covering technical knowledge and interpersonal abilities crucial in a digital-first setting. Improved capabilities boost personal and corporate effectiveness, fostering a climate of continuous learning that corresponds with advancements in technology and business

(Sherehiy & Karwowski, 2014). Research suggests regular training improves decision-making, problem-solving, and work quality (Bhuiyan et al., 2021; Herremans, 2021). Adaptability is essential during a period marked by rapid technological breakthroughs, as it allows individuals to efficiently manage disruptions and prepare themselves for future challenges (Li, 2020). Upskilling and reskilling promote innovation by inspiring individuals to delve into new ideas, improving competitive advantage. Furthermore, these activities enhance employee retention and satisfaction by demonstrating a commitment to career development, hence reducing turnover and maintaining a loyal workforce (Cukier, 2020).

2.6. Barriers to Effective Upskilling and Reskilling

In the ever-changing job market, gaining additional skills and adjusting to new positions is essential to maintain flexibility. Nevertheless, numerous impediments exist that can hinder these endeavors. Financial constraints are a significant obstacle for firms, especially smaller ones when funding comprehensive training programs (Maisiri & van Dyk, 2021). Employee resistance to change is challenging because of apprehensions around job security and uncertainty about gaining new skills (Singh & Singh, 2017). The hesitancy is sometimes exacerbated by time constraints, as staff members balance training with their regular duties (Ellingrud et al., 2020). Moreover, outdated or inappropriate training information that does not align with current industry requirements or strategic business objectives can diminish the efficacy of these programs (Mahasneh et al., 2021). To surmount these challenges, companies must plan and implement tailored training initiatives, cultivate a culture that emphasizes continuous learning, and guarantee that training resources are relevant and consistently refreshed (Galport & Azzam, 2017).

2.7. Research Gap

The research deficiencies in the topic revolve around a restricted comprehension of how Strategies for Upskilling and Reskilling (SUR) directly enhance Workforce Agility and Adaptability (WAA) in diverse industries and among distinct workforce demographics. An insufficient Study has been conducted on the precise role of the Organizational Support Environment (OSE) in facilitating SUR and its direct impact on WAA. The current body of literature often needs more coverage of the precise mechanisms by which a supportive organizational environment, including leadership, resources, and cultural factors, can improve the efficacy of upskilling and reskilling programs. Moreover, there needs to be more scrutiny of the influence of different organizational contexts and personnel characteristics on the efficacy of these techniques, specifically for long-term outcomes and return on investment (ROI) (McKinsey & Company, 2021; Deloitte, 2022). By rectifying these deficiencies, it is feasible to construct more precise criteria for creating compelling and situation-specific strategies for enhancing and retraining.

2.8. Conceptual Framework of the Study

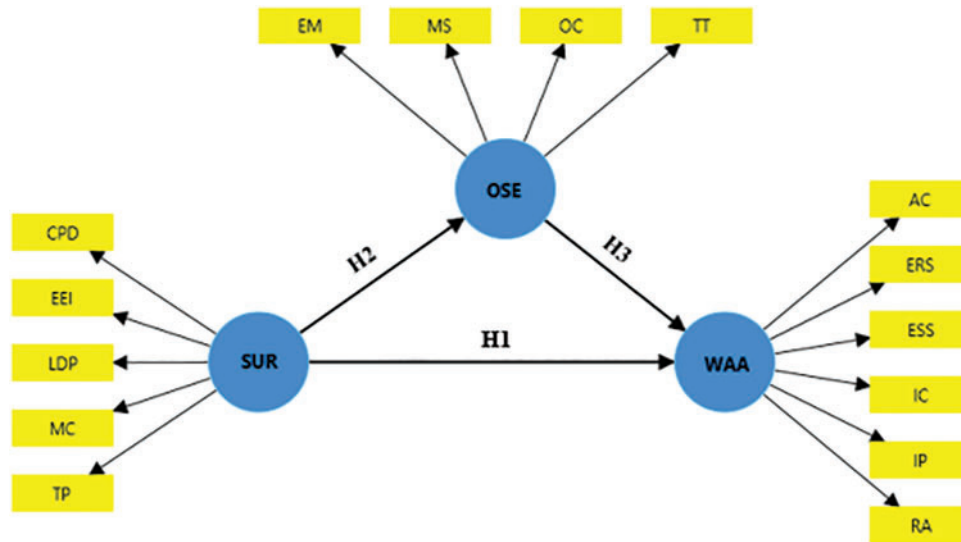Fig. 1 presents the conceptual framework of the study.

Fig. 1. Conceptual framework (Developed by Authors). Note: SUR = Strategies for Upskilling and Reskilling, OSE = Organizational Support Environment, WAA = Workforce Agility and Adaptability. TP = Training Programs, MC = Mentorship and Coaching, LDP = Learning and Development Platforms, CPD = Career Path Development, EEI = Employee Engagement Initiatives, TT = Technology and Tools, OC = Organizational Culture, MS = Management Support, EM = Employee Motivation, RA = Resource Availability, ESS = Enhanced Skill Set, IP = Improved Performance, AC = Adaptability to Change, IC = Innovation and Creativity, ERS = Employee Retention and Satisfaction.

2.9. Hypotheses of the Study

According to the literature, the following hypotheses can be formulated:

- **H1:** Strategies aimed at upskilling and reskilling favorably impact the agility and adaptability of the workforce. This hypothesis posits that introducing focused upskilling and reskilling initiatives improves the workforce's capacity to adjust to changes and effectively assume new roles (McKinsey & Company, 2021; Deloitte, 2022).
- **H2:** The Organizational Support Environment (OSE) favorably impacts Strategies for Upskilling and Reskilling (SUR). This hypothesis suggests that to be successful and effective, it is essential to have a supportive organizational environment for upskilling and reskilling strategies. This environment should include leadership support, resource access, and a culture promoting continuous learning. This idea is supported by the World Economic Forum (2020) and Accenture (2020).
- **H3:** The Organizational Support Environment (OSE) favorably impacts Workforce Agility and Adaptability (WAA). This hypothesis posits that when organizations create a supportive environment, it promotes effective upskilling and reskilling and directly improves workforce agility and adaptability. This, in turn, enables employees to respond more effectively to changing market demands and technological advancements (Boston Consulting Group (BCG), 2021; Gartner, 2021).

3. Materials and Methods

The Study employed a quantitative methodology, collecting data from a sample of 250 corporate employees in Bangladesh representing 45 firms. A standardized survey, with Likert scale questions, was circulated to assess variables such as Strategies for Upskilling and Reskilling (SUR), Workforce Agility and Adaptability (WAA), and the Organizational Support Environment (OSE). The distribution of respondents' attributes was studied using IBM SPSS Statistics to examine the demographic data. Structural Equation Modeling (SEM) was utilized to test hypotheses, specifically to investigate the correlations between SUR, WAA, and OSE. The validity and reliability of the constructs were confirmed by using Exploratory Factor Analysis (EFA) to validate the measurement model. The findings were utilized to evaluate the influence of organizational support on upskilling methods and worker adaptability. The Study complied with ethical guidelines, ensuring that participants' identities and information remained anonymous during the research.

4. Analyses and Findings

4.1. Profile of the Respondents

Table I presents the demographic profile of the 250 respondents from 45 corporate organizations in Bangladesh offers significant insights into the characteristics of the workforce. The age distribution reveals that a substantial majority of the workforce is in the middle stage of their careers, with 54.8% of respondents falling between the ages of 41 and 50. In addition, 22.4% of the population belongs to the age group of 31–40 years, 12% are between 18–30 years old, and 10.8% are above 50. This indicates that the workforce consists mainly of mature individuals, which may impact how upskilling programs are developed and implemented. The gender distribution is biased towards males, who comprise 60.8% of the sample, while females account for 39.2%. This indicates a probable gender imbalance in business

TABLE I: Demographic Characteristics of Respondents

Characteristics	Frequency	Percent (%)	Valid percent	Cumulative percent
Age				
18–30 years	30	12.0	12.0	12.0
31–40 years	56	22.4	22.4	34.4
41–50 Years	137	54.8	54.8	89.2
50 Years Above	27	10.8	10.8	100.0
Total	250	100.0	100.0	
Gender				
Male	152	60.8	60.8	60.8
Female	98	39.2	39.2	100.0
Total	250	100.0	100.0	
Education level				
Bachelor's degree	140	56.0	56.0	56.0
Master's degree	100	40.0	40.0	96.0
Doctorate or professional degree	10	4.0	4.0	100.0
Total	250	100.0	100.0	
Experience				
Less than one year	41	16.4	16.4	16.4
1–5 years	132	52.8	52.8	69.2
6–10 years	61	24.4	24.4	93.6
More than ten years	16	6.4	6.4	100.0
Total	250	100.0	100.0	

environments. In terms of educational qualifications, the majority of respondents possess a Bachelor's degree (56%), followed by individuals with a Master's degree (40%), and a smaller subset with Doctorate or Professional degrees (4%). The significant level of education highlights a solid basis for professional growth and educational endeavors. Regarding work experience, 52.8% of individuals had 1–5 years of experience, 24.4% have 6–10 years, 16.4% have less than one year, and 6.4% have more than ten years. The significant percentage of employees with less work experience suggests a youthful and potentially flexible workforce, essential for successfully adopting upskilling and reskilling initiatives to improve workforce agility and adaptation in response to rapid market changes.

4.2. Exploratory Factor Analysis (Initial Test)

The study utilized factor loading to evaluate the relationship between factors and variables (Kline, 2011). Loadings often fall between −1 to 1, and values above 0.5 are considered ideal (Kline, 2011; Fornell & Larcker, 1981). The survey consisted of 15 reflecting indicators. Fig. 2 illustrates that the initial testing revealed that one indicator (MC out of 15) had low loadings on its intended build. In order to enhance the accuracy and consistency of the model, specific indicators were omitted from the final structural model.

4.3. Assessing Reflective Measurement Models

Indicator reliability is assessed using PLS-SEM. Indicators with reliability values above 0.70 are considered reliable. In Table II, all indicators meet this threshold, indicating strong reliability and consistency in measuring their respective constructs. For instance, "Training Programs" (TP), with a reliability of 0.932, signifies a high degree of consistency in this measure.

4.4. Internal Consistency Reliability

Table III provides an overview of the construct reliability and validity measures for three key constructs: Organizational Support Environment (OSE), Strategies for Upskilling and Reskilling (SUR), and Workforce Agility and Adaptability (WAA). The Cronbach's alpha values for OSE (0.943), SUR (0.777), and WAA (0.970) indicate high internal consistency, with values exceeding the generally accepted threshold of 0.70. The composite reliability (rho_a and rho_c) further supports these findings, with all values surpassing the minimum acceptable level of 0.70, confirming the constructs' reliability. Specifically, OSE and WAA demonstrate exceptionally high composite reliability scores, with OSE at 0.944 (rho_a) and 0.959 (rho_c) and WAA at 0.972 (rho_a) and 0.976 (rho_c). The Average Variance Extracted (AVE) values for all constructs are above the recommended threshold of 0.50, with OSE at 0.855, SUR at 0.595, and WAA at 0.871, indicating good convergent validity. These metrics collectively suggest that the constructs are reliable and valid for this Study, providing a robust foundation for subsequent analysis.

4.5. Discriminant Validity

As demonstrated by the cross-loading matrix in Table IV, the discriminant validity assessment indicates that the indicators predominantly load more strongly on their corresponding constructs than other constructs. This suggests that there is good discriminant validity among the constructs: Organizational Support Environment (OSE), Strategies for Upskilling and Reskilling (SUR), and Workforce Agility and Adaptability (WAA). As an illustration, the indicator AC exhibits strong loadings on WAA (0.962), which surpasses its loadings on OSE (0.909) and SUR (0.901). This confirms that AC predominantly measures WAA. Similarly, markers such as EM and TP exhibit more substantial loadings on their specific
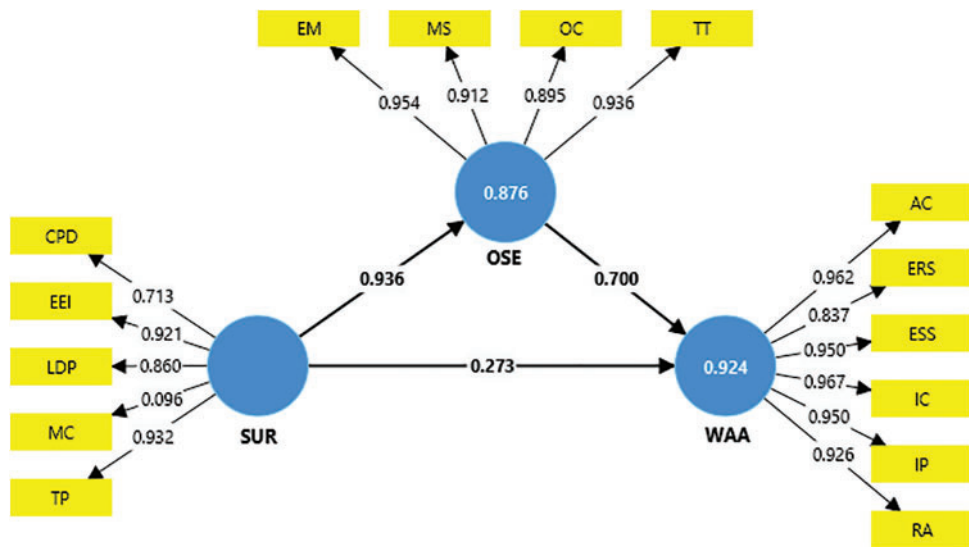
Fig. 2. The structural equation modeling (initial).

TABLE II: The Indicator Reliability: Reliability Indicators

Constructs	SUR	USE	WAA
TP	0.932		
LDP	0.860		
CPD	0.713		
ELI	0.921		
TT		0.936	
OC		0.895	
MS		0.912	
EM		0.954	
RA			0.926
ESS			0.950
IP			0.950
AC			0.962
IC			0.967
ERS			0.837

Note: SUR = Strategies for Upskilling and Reskilling, OSE = Organizational Support Environment, WAA = Workforce Agility and Adaptability.

TABLE III: Construct Reliability and Validity Overview

Constructs	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
OSE	0.943	0.944	0.959	0.855
SUR	0.777	0.919	0.860	0.595
WAA	0.970	0.972	0.976	0.871

Note: SUR = Strategies for Upskilling and Reskilling, OSE = Organizational Support Environment, WAA = Workforce Agility and Adaptability.

constructions than others, emphasizing these constructs' uniqueness.

Nevertheless, markers like CPD and LDP exhibit moderate cross-loadings, indicating that although they mainly assess their intended constructs, there might be some overlap. Significantly, the low loadings of MC across all components indicate a minimum level of importance to the model. In summary, the results confirm that each construct represents different conceptual areas, which gives us confidence in the constructs' validity within the PLS-SEM framework.

4.6. Fornell-Larcker Criterion

The Fornell-Larcker criterion is employed to evaluate the discriminant validity of constructs inside a model,

guaranteeing that one construct is distinguishable from the others. The diagonal of Table V displays the square root of the Average Variance Extracted (AVE) for each construct. The values for Organizational Support Environment (OSE), Strategies for Upskilling and Reskilling (SUR), and Workforce Agility and Adaptability (WAA) are 0.924, 0.771, and 0.933, respectively. These values exceed The inter-construct correlations, including the correlation between OSE and SUR (0.936) and between SUR and WAA (0.929). This suggests that each concept has a stronger correlation with its indicators than with indicators of other constructs, thereby demonstrating the presence of good discriminant validity. Hence, the constructs in this model are adequately separated, and various theoretical

TABLE IV: CROSS LOADING MATRIX

Constructs	OSE	SUR	WAA
AC	0.909	0.901	0.962
CPD	0.568	0.713	0.550
EEI	0.867	0.921	0.857
EM	0.954	0.897	0.914
ERS	0.813	0.787	0.837
ESS	0.909	0.865	0.950
IC	0.937	0.901	0.967
IP	0.907	0.877	0.950
LDP	0.751	0.860	0.743
MC	0.094	0.096	0.074
MS	0.912	0.849	0.843
OC	0.895	0.851	0.885
RA	0.873	0.866	0.926
TP	0.966	0.932	0.973
TT	0.936	0.862	0.891

Note: SUR = Strategies for Upskilling and Reskilling, OSE = Organizational Support Environment, WAA = Workforce Agility and Adaptability.

TABLE V: DISCRIMINANT VALIDITY–FORNELL-LARCKER CRITERION

Constructs	OSE	SUR	WAA
OSE	0.924		
SUR	0.936	0.771	
WAA	0.956	0.929	0.933

Note: SUR = Strategies for Upskilling and Reskilling, OSE = Organizational Support Environment, WAA = Workforce Agility and Adaptability.

TABLE VI: COEFFICIENT OF DETERMINATION (R^2)

Constructs	R-square	R-square adjusted
OSE	0.876	0.875
WAA	0.924	0.923

Note: OSE = Organizational Support Environment, WAA = Workforce Agility and Adaptability.

notions are assessed, thereby confirming the reliability of the SEM model's conclusions.

4.7. Coefficient of Determination (R^2)

The Coefficient of Determination (R^2) values presented in Table VI provide insight into the explanatory power of the model constructs within the Study. The R^2 value for Organizational Support Environment (OSE) is 0.876, with an adjusted R^2 of 0.875, indicating that 87.5% of the variance in OSE can be explained by the predictor variables included in the model. Similarly, the R^2 for Workforce Agility and Adaptability (WAA) is 0.924, with an adjusted R^2 of 0.923, suggesting that the model accounts for 92.3% of the variance in WAA. These high R^2 values indicate vital predictive accuracy and suggest that the model's constructs effectively capture the underlying dynamics influencing both OSE and WAA. The slight difference between the R^2 and the adjusted R^2 values also suggests minimal overfitting, further validating the model's robustness and the reliability of its predictive power.

4.8. Structural Equation Modeling Results

After rigorously evaluating the reliability and validity of all reflective measurements in our research model and ensuring data integrity, we applied the SMART-PLS algorithm with a path weighting scheme to maximize the R^2 value for our endogenous latent variable, workforce agility, and adaptability (WAA).

TABLE VII: PATH COEFFICIENTS INTERPRETATION

Path	Coefficient
SUR -> WAA	0.276
OSE -> SUR	0.935
OSE -> WAA	0.698

4.9. Path Coefficients Interpretation

Table VII the path coefficients indicate the strength of relationships between constructs. A coefficient of 0.935 between OSE and SUR suggests a strong positive relationship, implying that a supportive organizational environment significantly enhances strategies for upskilling and reskilling. Similarly, OSE strongly impacts WAA (0.698), and SUR moderately affects WAA (0.276).

4.10. Path Coefficients Significance using Bootstrapping Test

Table VIII the path coefficient significance, evaluated using the bootstrapping test in PLS-SEM, confirms the robustness and significance of the hypothesized relationships within the model. The path coefficient from Strategies for Upskilling and Reskilling (SUR) to Workforce Agility and Adaptability (WAA) (H1) is 0.276, with a t-statistic of 2.972 and a p-value of 0.003, indicating a statistically significant positive relationship. This supports the hypothesis that effective SUR initiatives enhance WAA.
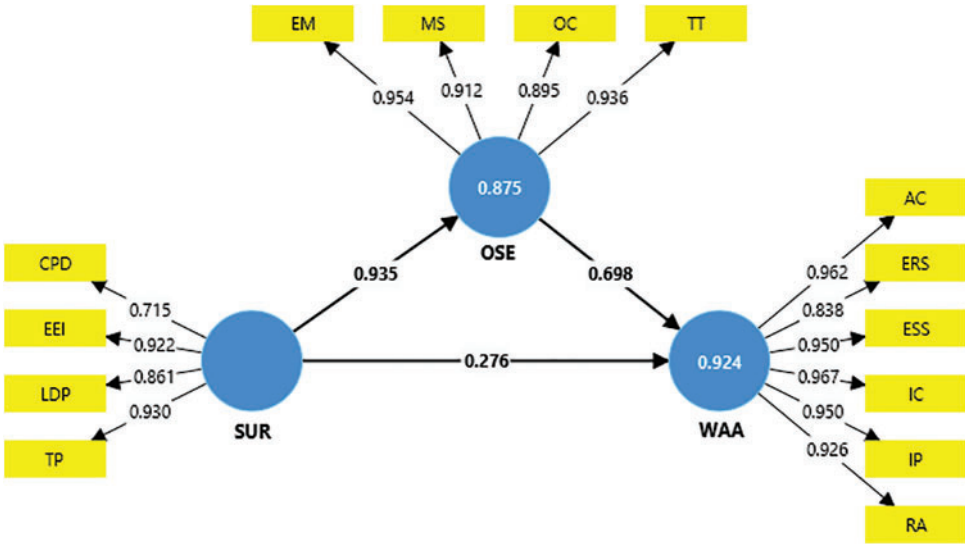
Fig. 3. The structural equation modeling (Final).

TABLE VIII: Path Coefficients Significance using Bootstrapping Test

Path	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P-values
SUR -> WAA	0.276	0.277	0.093	2.972	0.003
SUR -> OSE	0.935	0.936	0.009	102.367	0.000
OSE -> WAA	0.698	0.697	0.092	7.581	0.000

Note: SUR = Strategies for Upskilling and Reskilling, OSE = Organizational Support Environment, WAA = Workforce Agility and Adaptability.

The path coefficient from SUR to Organizational Support Environment (OSE) (H2) is 0.935, with an exceptionally high t-statistic of 102.367 and a p-value of 0.000, demonstrating a highly significant positive influence, affirming that a supportive OSE significantly boosts SUR efforts. Additionally, the path from OSE to WAA (H3) has a coefficient of 0.698, a t-statistic of 7.581, and a p-value of 0.000, indicating that OSE significantly enhances WAA. These findings collectively support the proposed hypotheses, confirming the critical role of a supportive organizational environment in facilitating upskilling and reskilling initiatives, significantly enhancing workforce agility and adaptability. In addition, the Fig. 3 shows the final structural equation modeling results.

5. Conclusions and Recommendations

The research confirms that upskilling and reskilling are crucial strategies for maintaining workforce flexibility and adaptation in the face of rapid technological advancements and market fluctuations. The Study highlights that creating a supportive corporate environment significantly enhances the effectiveness of these strategies, leading to improved staff capabilities and overall organizational success. Organizations that place a high value on ongoing learning and development foster a workforce that can readily adjust and ensure sustained growth and competitiveness in the current business landscape. The research provides some crucial recommendations for companies aiming to enhance the adaptability and versatility of their workforce through the implementation of upskilling and reskilling strategies. Firstly, it emphasizes the importance of a supportive organizational climate that encourages

continuous learning and provides the necessary resources and infrastructure for training initiatives. Organizations should include modern learning technology and platforms like e-learning and virtual reality to offer tailored and easily scalable training solutions.

Moreover, aligning upskilling and reskilling programs with the business objectives and market requirements is crucial to ensure their relevance and effectiveness. The study highlights the significance of leadership in cultivating a culture that highly values innovation and adaptability, inspiring individuals to engage actively in ongoing learning. Collaborations with educational institutions and government support are essential for overcoming financial and logistical challenges, ensuring that training programs within the company are accessible and practical. These recommendations aim to cultivate a resilient and adaptable workforce capable of effectively navigating the rapidly evolving employment market. The report highlights the importance of introducing upskilling and reskilling initiatives to develop a workforce that can adapt proficiently to technological advancements and changes in the market. The Study's findings suggest that creating a favorable corporate environment significantly improves the effectiveness of these efforts, increasing employee adaptability and responsiveness. However, it is crucial to acknowledge various limitations. The sample size, albeit sufficient, is limited to a specific demographic within Bangladesh's corporate sector, which may only partially represent the broader global workforce. In addition, the cross-sectional form of the Study hinders the ability to establish a causal association across a specific period. In order to enhance the generalizability of the findings, it is

recommended that future research emphasize doing longitudinal studies and broadening the sample to encompass a broader range of diversity.

Ethics Statement

Informed consent was not required for this study.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Conflict of Interest

The authors declare no conflict of interest.

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